

Miscellaneous Notes

1. HABITS OF THE ASIATIC BLACK BEAR *SELENARCTOS THIBETANUS* G. CUVIER

In *JBNHS* 52 (2 and 3): 586, I contributed a short note on the above subject. In *NO PASSPORT TO TIBET* by Lt. Col. F. M. Bailey, Butler and Tanner Ltd., second edition, 1957 I find that Lt.-Col. Bailey also came across a bear nest in August 1913 at Shu, altitude 10,400 ft. (10 miles from Mipi). Below is an extract from page 166:

'At Shu we halted because Morshead wanted to take the latitude and an azimuth to set the compass. He wasn't fully successful, because in the afternoon the sky clouded over and then it came on to rain. I had gone up the ravine to look for specimens and by the time I returned I was drenched through. I was told that in summer there was no game but in winter there were serow, bharal, snowcock, eared pheasants, and another they called "kuling", which sounded from their description like some kind of jungle fowl.

'They were keen that I should shoot bears for them. The bears came down every night and ruined their crops. I saw many of their tracks and in a tree beside a field the bears had made two "nests" or lairs by bringing together the leafy branches to form platforms about three feet by two, so dense that I could not see through them. But the bears themselves were not to be seen, though I sat up in a tree for some time, hoping they would come.'

25 INYA MYAING ROAD,
UNIVERSITY P.O.,
RANGOON, BURMA,
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TUN YIN,
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2. A NOTE ON THE FLYING FOX (*PTEROPUS HYPOMELANUS MARIS*) OF ADDU ATOLL, MALDIVE ISLANDS

Two species of the large fruit-bat commonly called the Flying Fox occur in the Maldive Islands, the commoner form *Pteropus giganteus ariel* in all the more northerly atolls, and *Pteropus hypomelanus maris* in the south (Hill, 1958). They appear to be the only members of the order Chiroptera that inhabit this archipelago; no smaller fruit-bats or insectivorous forms (Microchiroptera) have been observed in any of the islands.

Pt. giganteus ariel is common in North Malé and throughout the majority of the atolls; *Pt. hypomelanus maris* is plentiful in the islands of the Addu Atoll in the extreme south of the archipelago, but how far north its range extends, where it meets *giganteus*, and whether the ranges of the two species tend to overlap are questions that have not yet been settled definitely. It is reported, nevertheless, that there are no flying foxes on Fua Mulaku Island, 30 miles or so to the north of Addu Atoll, but they are common again in Suvadiva Atoll, a further 30 miles or more to the northward of Fua Mulaku Island. It may well be that *maris* is confined to Addu Atoll and that the Equator is the dividing line between the ranges of the two species.

Having had the opportunity of studying the habits of *giganteus ariel* during a visit to Malé towards the end of 1956 and in early 1957 and those of *hypomelanus maris* while stationed in Gan, Addu Atoll, in 1958, the object of this paper is to give a short account of the habits of the latter species to show in what way it differs from those of *giganteus ariel*.

Before going any further, however, it should be noted that, although both species are exceptionally large bats and have the appearance of being of much the same size and colour on the wing, *hypomelanus maris* can readily be distinguished from *giganteus ariel* by the distinctive outline of the head when seen side-face; in *maris*, the muzzle appears much thicker and the face does not have the sharp-pointed look of *giganteus* but is rather blunt and gross. This distinguishing feature is readily noticeable even at a distance.

General habits: Contrary to the habits of the great majority of bats, *maris* is as much diurnal as nocturnal. At any time of the day, even at noon when the sun is overhead and at its hottest and brightest or when rain is beating down, these bats may be seen flying about and feeding on the villagers' pawpaws. On the other hand, others may be seen hanging from the underside of a coconut palm leaf or a shady branch, sleeping or fanning themselves lazily with their wings. It would seem, therefore, that they partake of food whenever they feel so inclined, without reference to the time of the day or the night, to the brightness of the sun or the darkness of the night. Presumably, as they appear to have no enemies (other than man to a very minor degree) there has been no necessity for them to maintain their nocturnal habits, but that they do still fly and feed by night as well as by day is proved by the fact that it is of frequent occurrence for one to collide at night with overhead electric cables and be electrocuted. They have not been observed to drink, unless they are doing so when they crawl into the crown of a coconut palm.

Although *giganteus* prefers to spend the day in communal roosts, no tendency to do so has been observed in *maris*. Whether flying from place to place, raiding the villagers' fruit trees, or resting and sleeping, *maris* is always solitary. Occasionally, two will meet while preparing to feed, whereupon a wrangling, screeching interlude ensues until one or the other takes its departure, but it is most exceptional to see more than one in the same tree. On the rare occasions when two have been observed hanging at rest within a few feet of one another, it has been thought that they were probably a paired ♂ and ♀.

Food: Although pawpaw is the most sought after fruit food, mangoes in their season, *jambu* and *jamburaulu* are all eaten avidly; plantains or bananas are consumed occasionally but are not in general favour, while wild figs from the few banyan trees (*Ficus* spp.) are readily devoured when ripening, and the berries of the wild *damba* trees are also taken. Generally speaking, however, these fruit bats rely upon the villagers' gardens for their sustenance and undoubtedly do a great deal of damage to the fruit crops. Curiously enough, the villagers find them helpful in connection with the tapping of the coconut palms for toddy; they state that the bats do no harm to the palms (they may indeed assist in the fertilisation of the flowers); on the contrary, when they visit the flowerstalks that have been tapped, they stimulate the flow of the juice by licking up the congealing drops and allowing a freer flow of sap.

Flight: The flight is typically deliberate and flapping, as in *giganteus*, but it is unusual to see *maris* flying high up; generally it flies about 100 ft. or less from the ground and often, when it has to cross open country or the sea, it will fly within a few feet of the surface, sometimes even taking advantage of the troughs of waves to shelter itself from the wind. On alighting in a palm or other tree, the head is held upwards and it grasps the objective with both feet and wing-claws; it then proceeds to clamber into position using its wing-claws and feet in a rather clumsy and awkward gait, encumbered by its membranes, until it can resume its accustomed head-down hanging attitude in its chosen place. When arriving to feed upon a pawpaw, the bat will hang up in the typical position if a suitable twig be handy; otherwise, head up and wings half extended, it will clasp the fruit to it and bite into it until it is satisfied or the fruit consumed. Then it will flap off to a nearby palm and hang from the underside of a midrib in a shady and airy spot until hunger urges it to raid another fruit tree. When in flight, the wing-claw is always held rigidly out in front of the wing.

Although an interesting animal from the naturalist's standpoint, there can be no question that *Pteropus hypomelanus maris* is a sore trial to the villagers of Addu Atoll.

c/o R. A. F. GAN,
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REFERENCES

Hill, J. E. (1958): Some Observations on the Fauna of the Maldive Islands. Part II—Mammals. *JBNHS* 55 (1): 3.

3. WILD ELEPHANTS IN THE UNION OF BURMA

(Supplementary Note)

KHEDDAH OPERATIONS

In December 1956 [*JBNHS* 54 (1): 177] I gave a statement of wild elephants captured in Burma from 1945-46 to 1951-52. Below is a statement of elephants captured from 1952-53 to 1956-57:

	Number captured	Number died, released, or escaped	Balance
1952-53			82
1953-54			78
1954-55	59	4	55
1955-56	98	13	85
1956-57	161	23	138

DESTRUCTION OF WILD ELEPHANTS

The insurgents are reported to have shot a large number of tuskers for the ivory in the Arakan Yomas. The same thing has happened in the Kachin State, where a number of wild elephants were illicitly shot for the ivory by the hill tribes. The ivory is taken across to China for disposal.

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